## AMENDMENTS TO THE CLAIMS

Please cancel Claims 2, 13, and 24 and amend Claims 1, 3, 12, 14, 23, and 25 as indicated below, without prejudice or disclaimer to continued examination on the merits.

1. (Currently Amended): A method, implemented by a communication coordinator on a module, for carrying out reliable communication in a communication system, comprising:

receiving a message from a sender intended for one or more applications, said message comprising a message identifier, and wherein said message identifier comprises a message sequence indicator;

determining based upon said message identifier whether said message had previously been received, wherein determining whether said message had previously been received comprises: determining whether said message sequence indicator is one of the sequence indicators in a set of missing sequence indicators maintained in a table; and in response to a determination that said message sequence indicator is not one of the sequence indicators in said set of missing sequence indicators, concluding that said message had previously been received; and

in response to a determination that said message had previously been received, foregoing delivery of said message to said one or more applications;

wherein a message exchange between a sender and a receiver is conducted ensuring that a message is delivered to a recipient at most once; and

wherein a subscriber is enabled to subscribe to multiple events using a single namespace specification and a single subscription request.

2. (Cancelled)

3. (Currently Amended): The method of claim [[2]] 1, wherein determining whether said message had previously been received further comprises:

in response to a determination that said message sequence indicator is one of the sequence indicators in said set of missing sequence indicators, concluding that said message had not previously been received; and

removing said message sequence indicator from said set of missing sequence indicators.

4. (Original): The method of claim 3, further comprising:

in response to a determination that said message had not previously been received, delivering said message to said one or more applications.

5. (Original): The method of claim 1, wherein said message identifier comprises a message sequence indicator, and wherein determining whether said message had previously been received comprises:

accessing a receiving sequence indicator associated with said sender;

determining whether said message sequence indicator precedes said receiving sequence indicator in a predetermined sequence;

in response to a determination that said message sequence indicator precedes said receiving sequence indicator in said predetermined sequence, determining whether said message sequence indicator is one of the sequence indicators in a set of missing sequence indicators; and

in response to a determination that said message sequence indicator is not one of the sequence indicators in said set of missing sequence indicators, concluding that said message had previously been received.

6. (Original): The method of claim 1, wherein said message identifier comprises a message sequence indicator, and wherein determining whether said message had previously been received comprises:

accessing a receiving sequence indicator associated with said sender;

determining whether said message sequence indicator is equivalent to said receiving sequence indicator; and

in response to a determination that said message sequence indicator is equivalent to said receiving sequence indicator, concluding that said message had previously been received.

7. (Original): The method of claim 1, further comprising:

in response to a determination that said message had not previously been received, delivering said message to said one or more applications.

8. (Original): The method of claim 7, wherein said message identifier comprises a message sequence indicator, and wherein determining whether said message had previously been received comprises:

accessing a receiving sequence indicator associated with said sender;

determining whether said message sequence indicator precedes said receiving sequence indicator in a predetermined sequence;

in response to a determination that said message sequence indicator precedes said receiving sequence indicator in said predetermined sequence, determining whether said message sequence indicator is one of the sequence indicators in a set of missing sequence indicators;

in response to a determination that said message sequence indicator is one of the sequence indicators in said set of missing sequence indicators, concluding that said message had not previously been received; and

removing said message sequence indicator from said set of missing sequence indicators.

9. (Original): The method of claim 7, wherein said message identifier comprises a message sequence indicator, and wherein determining whether said message had previously been received comprises:

accessing a receiving sequence indicator associated with said sender;

determining whether said message sequence indicator comes after said receiving sequence indicator in a predetermined sequence; and

in response to a determination that said message sequence indicator comes after said receiving sequence indicator in said predetermined sequence, concluding that said message had not previously been received.

10. (Original): The method of claim 9, wherein determining whether said message had previously been received further comprises:

in response to a determination that said message sequence indicator comes after said receiving sequence indicator in said predetermined sequence, determining whether there are any intervening sequence indicators between said message sequence indicator and said receiving sequence indicator; and

in response to a determination that there is one or more intervening sequence indicators between said message sequence indicator and said receiving sequence indicator, adding said one or more intervening sequence indicators to a set of missing sequence indicators.

11. (Original): The method of claim 9, wherein determining whether said message had previously been received further comprises:

in response to a determination that said message sequence indicator comes after said receiving sequence indicator in said predetermined sequence, updating said receiving sequence indicator with said message sequence indicator.

12. (Currently Amended): An apparatus for implementing reliable communication in a communication system, comprising:

a mechanism for receiving a message from a sender intended for one or more applications, said message comprising a message identifier, wherein said message identifier comprises a message sequence indicator;

a mechanism for determining based upon said message identifier whether said message had previously been received, and wherein said mechanism for determining whether said message had previously been received comprises: a mechanism for determining whether said message sequence indicator is one of the sequence indicators in a set of missing sequence indicators maintained in a table; and a mechanism for concluding, in response to a determination that said message sequence indicator is not one of the sequence indicators in said set of missing sequence indicators, that said message had previously been received; and

a mechanism for foregoing, in response to a determination that said message had previously been received, delivery of said message to said one or more applications;

wherein a message exchange between a sender and a receiver is conducted ensuring that a message is delivered to a recipient at most once; and

wherein a subscriber is enabled to subscribe to multiple events using a single namespace specification and a single subscription request.

13. (Cancelled)

14. (Original): The apparatus of claim [[13]] 12, wherein said mechanism for determining whether said message had previously been received further comprises:

a mechanism for concluding, in response to a determination that said message sequence indicator is one of the sequence indicators in said set of missing sequence indicators, that said message had not previously been received; and

a mechanism for removing said message sequence indicator from said set of missing sequence indicators.

15. (Original): The apparatus of claim 14, further comprising:

a mechanism for delivering, in response to a determination that said message had not previously been received, said message to said one or more applications.

16. (Original): The apparatus of claim 12, wherein said message identifier comprises a message sequence indicator, and wherein said mechanism for determining whether said message had previously been received comprises:

a mechanism for accessing a receiving sequence indicator associated with said sender;

a mechanism for determining whether said message sequence indicator precedes said receiving sequence indicator in a predetermined sequence;

a mechanism for determining, in response to a determination that said message sequence indicator precedes said receiving sequence indicator in said predetermined sequence, whether said message sequence indicator is one of the sequence indicators in a set of missing sequence indicators; and

a mechanism for concluding, in response to a determination that said message sequence indicator is not one of the sequence indicators in said set of missing sequence indicators, that said message had previously been received.

17. (Original): The apparatus of claim 12, wherein said message identifier comprises a message sequence indicator, and wherein said mechanism for determining whether said message had previously been received comprises:

a mechanism for accessing a receiving sequence indicator associated with said sender;

a mechanism for determining whether said message sequence indicator is equivalent to said receiving sequence indicator; and

a mechanism for concluding, in response to a determination that said message sequence indicator is equivalent to said receiving sequence indicator, that said message had previously been received.

18. (Original): The apparatus of claim 12, further comprising:

a mechanism for delivering, in response to a determination that said message had not previously been received, said message to said one or more applications.

19. (Original): The apparatus of claim 18, wherein said message identifier comprises a message sequence indicator, and wherein said mechanism for determining whether said message had previously been received comprises:

a mechanism for accessing a receiving sequence indicator associated with said sender;

a mechanism for determining whether said message sequence indicator precedes said receiving sequence indicator in a predetermined sequence;

a mechanism for determining, in response to a determination that said message sequence indicator precedes said receiving sequence indicator in said predetermined sequence, whether said message sequence indicator is one of the sequence indicators in a set of missing sequence indicators;

a mechanism for concluding, in response to a determination that said message sequence indicator is one of the sequence indicators in said set of missing sequence indicators, that said message had not previously been received; and

a mechanism for removing said message sequence indicator from said set of missing sequence indicators.

20. (Original): The apparatus of claim 18, wherein said message identifier comprises a message sequence indicator, and wherein said mechanism for determining whether said message had previously been received comprises:

a mechanism for accessing a receiving sequence indicator associated with said sender;

a mechanism for determining whether said message sequence indicator comes after said receiving sequence indicator in a predetermined sequence; and

a mechanism for concluding, in response to a determination that said message sequence indicator comes after said receiving sequence indicator in said predetermined sequence, that said message had not previously been received.

21. (Original): The apparatus of claim 20, wherein said mechanism for determining whether said message had previously been received further comprises:

a mechanism for determining, in response to a determination that said message sequence indicator comes after said receiving sequence indicator in said predetermined sequence, whether there are any intervening sequence indicators between said message sequence indicator and said receiving sequence indicator; and

a mechanism for adding, in response to a determination that there is one or more intervening sequence indicators between said message sequence indicator and said receiving sequence indicator, said one or more intervening sequence indicators to a set of missing sequence indicators.

22. (Original): The apparatus of claim 20, wherein said mechanism for determining whether said message had previously been received further comprises:

a mechanism for updating, in response to a determination that said message sequence indicator comes after said receiving sequence indicator in said predetermined sequence, said receiving sequence indicator with said message sequence indicator.

23. (Currently Amended): A computer readable medium comprising instructions which, when executed by one or more processors, cause the one or more processors to implement reliable communication in a communication system, said computer readable medium comprising:

instructions for causing one or more processors to receive a message from a sender intended for one or more applications, said message comprising a message identifier, wherein said message identifier comprises a message sequence indicator;

instructions for causing one or more processors to determine based upon said message identifier whether said message had previously been received, and wherein the instructions for causing one or more processors to determine whether said message had previously been received comprises: instructions for causing one or more processors to determine whether said message sequence indicator is one of the sequence indicators in a

set of missing sequence indicators maintained in a table; and instructions for causing one or more processors to conclude, in response to a determination that said message sequence indicator is not one of the sequence indicators in said set of missing sequence indicators, that said message had previously been received; and

instructions for causing one or more processors to forego, in response to a determination that said message had previously been received, delivery of said message to said one or more applications;

wherein a message exchange between a sender and a receiver is conducted ensuring that a message is delivered to a recipient at most once; and

wherein a subscriber is enabled to subscribe to multiple events using a single namespace specification and a single subscription request.

24. (Cancelled)

25. (Currently Amended): The computer readable medium of claim [[24]] 23, wherein the instructions for causing one or more processors to determine whether said message had previously been received further comprises:

instructions for causing one or more processors to conclude, in response to a determination that said message sequence indicator is one of the sequence indicators in said set of missing sequence indicators, that said message had not previously been received; and

instructions for causing one or more processors to remove said message sequence indicator from said set of missing sequence indicators.

26. (Original): The computer readable medium of claim 25, further comprising:

instructions for causing one or more processors to deliver, in response to a determination that said message had not previously been received, said message to said one or more applications.

27. (Original): The computer readable medium of claim 23, wherein said message identifier comprises a message sequence indicator, and wherein the instructions for causing one or more processors to determine whether said message had previously been received comprises:

instructions for causing one or more processors to access a receiving sequence indicator associated with said sender;

instructions for causing one or more processors to determine whether said message sequence indicator precedes said receiving sequence indicator in a predetermined sequence;

instructions for causing one or more processors to determine, in response to a determination that said message sequence indicator precedes said receiving sequence indicator in said predetermined sequence, whether said message sequence indicator is one of the sequence indicators in a set of missing sequence indicators; and

instructions for causing one or more processors to conclude, in response to a determination that said message sequence indicator is not one of the sequence indicators in said set of missing sequence indicators, that said message had previously been received.

28. (Original): The computer readable medium of claim 23, wherein said message identifier comprises a message sequence indicator, and wherein the instructions for causing one or more processors to determine whether said message had previously been received comprises:

instructions for causing one or more processors to access a receiving sequence indicator associated with said sender;

instructions for causing one or more processors to determine whether said message sequence indicator is equivalent to said receiving sequence indicator; and

instructions for causing one or more processors to conclude, in response to a determination that said message sequence indicator is equivalent to said receiving sequence indicator, that said message had previously been received.

29. (Original): The computer readable medium of claim 23, further comprising:

instructions for causing one or more processors to deliver, in response to a determination that said message had not previously been received, said message to said one or more applications.

30. (Original): The computer readable medium of claim 29, wherein said message identifier comprises a message sequence indicator, and wherein the instructions for causing one or more processors to determine whether said message had previously been received comprises:

instructions for causing one or more processors to access a receiving sequence indicator associated with said sender;

instructions for causing one or more processors to determine whether said message sequence indicator precedes said receiving sequence indicator in a predetermined sequence;

instructions for causing one or more processors to determine, in response to a determination that said message sequence indicator precedes said receiving sequence indicator in said predetermined sequence, whether said message sequence indicator is one of the sequence indicators in a set of missing sequence indicators;

instructions for causing one or more processors to conclude, in response to a determination that said message sequence indicator is one of the sequence indicators in said set of missing sequence indicators, that said message had not previously been received; and

instructions for causing one or more processors to remove said message sequence indicator from said set of missing sequence indicators.

31. (Original): The computer readable medium of claim 29, wherein said message identifier comprises a message sequence indicator, and wherein the instructions for causing one or more processors to determine whether said message had previously been received comprises:

instructions for causing one or more processors to access a receiving sequence indicator associated with said sender;

instructions for causing one or more processors to determine whether said message sequence indicator comes after said receiving sequence indicator in a predetermined sequence; and

instructions for causing one or more processors to conclude, in response to a determination that said message sequence indicator comes after said receiving sequence indicator in said predetermined sequence, that said message had not previously been received.

32. (Original): The computer readable medium of claim 31, wherein the instructions for causing one or more processors to determine whether said message had previously been received further comprises:

instructions for causing one or more processors to determine, in response to a determination that said message sequence indicator comes after said receiving sequence indicator in said predetermined sequence, whether there are any intervening sequence indicators between said message sequence indicator and said receiving sequence indicator; and

instructions for causing one or more processors to add, in response to a determination that there is one or more intervening sequence indicators between said message sequence indicator and said receiving sequence indicator, said one or more intervening sequence indicators to a set of missing sequence indicators.

33. (Original): The computer readable medium of claim 31, wherein the instructions for causing one or more processors to determine whether said message had previously been received further comprises:

instructions for causing one or more processors to update, in response to a determination that said message sequence indicator comes after said receiving sequence indicator in said predetermined sequence, said receiving sequence indicator with said message sequence indicator.